

REMARKS

Applicants have carefully reviewed and considered the Examiner's Action mailed October 24, 2007. Reconsideration is respectfully requested in view of the comments set forth below.

By this Amendment, claims 1-2 and 4-6 are amended and new claims 10-24 are presented. Accordingly, claims 1-24 are pending in the present application. There are 5 independent claims and 24 total claims in the present application. The undersigned authorizes the U.S. Patent and Trademark Office to charge the excess independent claim fees of \$210.00 (small entity) and the excess total claim fee of \$100 (small entity) to Deposit Account 22-0261.

The disclosure was objected to because of the various informalities noted in the paragraphs on page 2 of the Action. The foregoing amendments to the specification address each and every issue raised by the Examiner. In most instances, the Examiner's suggestions were adopted. The reference labels that were missing from the disclosure are added to the paragraphs at page 3, lines 18-21 and page 7, lines 6-13 for Figures 1 and 2, respectively. Thus, it is believed that all of the informalities have been addressed so that this objection should be moot. Withdrawal of the objection to the disclosure is respectfully requested.

Claims 2-6 and 9 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for the reasons set forth on page 3 of the Action. By the foregoing amendments to the claims, Applicants have amended the claims to provide the requested clarification. In particular, the recitation of "on the same plane" in claims 2, 4 and 6 has been clarified to recite that the first induction unit (13) is formed on the same plane as that of the input port (10) and the second induction unit (14) is formed on the same plane as that of the phase shift means (15) (claim 2- See Figures 3 and 5, respectively), the phase delay means (17A, B) is formed on the same plane

with a plane of the input port (10) (claim 4-See Figure 3) and that a plurality of copper plate patterns are formed on the same plane of the phase delay means (claim 6). Thus, it is believed that all of the issues have been resolved and claims 2-6 and 9 are fully definite under 35 U.S.C. §112. Withdrawal of this rejection is respectfully requested.

Claims 1 and 7-8 are rejected under 35 U.S.C. §102(b) as being clearly anticipated by Japanese Publication No. 11-355038 to Takashi et al. (hereinafter referred to as “Takashi”). This rejection is traversed.

Takashi is directed to a polarized wave diversity antenna, which defines the general state of the art and which is not considered to be of particular relevance in the International Search Report corresponding to this National Stage application. It is the Examiner’s position that Takashi discloses a phase shifter having the recited power dividing means (e.g., at the far left side of the Fig. 1 structure) which receives an input signal and divides the same into a first output signal the phase of which can be varied and a second output signal having a fixed phase value. While Takashi discloses variable phase shifters 4B, 3B, it does not disclose shifting phase of the third divided signal and the fourth divided signal to thereby generate phase-shifted signals, which are then delayed by the recited phase delay means of independent claim 1 of the present application. That is, the alleged two output ports (at the upper part of the left structure) are connected to simply connected to phase shifters 3B, 4B. The left side of the structure feeds the 45°-side antennae and the right hand side of the structure feeds the -45°-side antennae. Consequently, Takashi does not disclose the recited “phase delay means for delaying of the third divided signal and the fourth divided signal based on the phase-shifted signals” and “at least two second output ports connected to the phase delay means for outputting the phase-shifted signals”, as recited in independent claim 1. Nor does Takashi disclose four second output ports connected

to the phase delay means of claim 7, let alone the eight ports recited in claim 8 of the present application. Consequently, Takashi cannot anticipate claims 1 and 7-8 because it fails to disclose each and every claimed limitation. Withdrawal of this rejection is respectfully requested.

Claims 2-6 and 9 are rejected under 35 U.S.C. §103(a) as being unpatentable over Takashi in view of U.S. Patent Application Publication No. 2003/0076198 to Phillips et al. (hereinafter referred to as “Phillips”). This rejection is traversed.

Contrary to the Examiner’s statement in the Office Action, Takashi does not disclose all of the limitations of the recited “phase delay means” and the “phase shift means” of the present application. Claim 2 recites that the following structure: first induction unit of the power dividing means is a plate having a semicircle shape formed on the same plane as that of the input port; and the second induction unit of the power dividing means is a plate having a ring shape formed on the same plane as that of the phase shift means. As the Examiner partially acknowledges, Takashi does not disclose specific structure. The secondary reference to Phillips is relied upon for its teachings of a phase shifter that adjusts the phase between two segments of an RF feed line fed to the phase shifter. That is, Phillips, like Takashi, is directed to adjusting the phase of signals and does not disclose the recited phase delay means of the claimed invention.

Specifically, the claimed invention recites “phase shift means” and “phase delay means”, which requires the description of those means from the specification to be read into the claims. As shown in Figure3, for example, the phase delay means includes a plurality of plate patterns, each having a different radius and an arc-shaped comb shape. Neither the secondary reference to Phillips, nor the primary reference to Takashi disclose, teach or suggest the limitations of the phase delay means and phase shift means of the present application. Accordingly, it is

respectfully submitted that the claimed invention is patentable over Takashi alone, or any combination of Takashi and Phillips. Withdrawal of the rejection under 35 U.S.C. §103(a) is requested.


Conclusion

Applicants have fully responded to each matter of substance raised in the Office Action and believe that the case is in condition for allowance. Withdrawal of the rejections and allowance of claims 1-24 of the application is therefore courteously solicited.

Should the Examiner believe that a conference would advance the prosecution of this application, he is encouraged to telephone the undersigned counsel to arrange such a conference.

Respectfully submitted,

Date: February 25, 2008


Catherine M. Voorhees
Registration No. 33,074
VENABLE LLP
P.O. Box 34385
Washington, D.C. 20043-9998
Telephone: (202) 344-4000
Telefax: (202) 344-8300

CMV/elw

::ODMA\PCDOCS\DC2DOCS1\933644\1